UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19 June 2008_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _16-43,45-47,55 and 56_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _16-43,45-47,55 and 56_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _24 March 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The Applicants' amendment, filed 19 June 2008, has been received, entered into

the record, and considered.

2.   As a result of the amendment, claims 49-54 have been canceled. Claims 1-15, 44

and 48 have been previously canceled. Claims 16-43, 45-47, 55 and 56 remain pending

in the application.

The Invention

3.   The Applicants' specification discloses a method and system for displaying

documents/advertisements that are conceptually close to a user-supplied concept,

wherein the retrieved documents/advertisements are ordered based upon monetary

values associated with said documents/advertisements.

Priority

4.   The Applicants' claim to domestic priority under 35 U.S.C. § 120, as a

continuation of application 09/493,701, filed 28 January 2000, which is a continuation-in-

part of application 09/431,760, filed 1 November 1999, is acknowledged.

5.   Since the limitations of the claims, particularly the feature of ordering

documents/advertisements based upon a monetary value associated with said

documents/advertisements, does not appear to be supported by application 09/431,760,

the priority date of the claims of the instant invention will be determined on a claim-by-

claim basis as necessary.

Claim Rejections - 35 USC § 101

6.   In view of the cancellation of claims 49-54, the pending claim rejections under 35

U.S.C. § 101 have been withdrawn.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

> 1.   Determining the scope and contents of the prior art.
> 2.   Ascertaining the differences between the prior art and the claims at issue.
> 3.   Resolving the level of ordinary skill in the pertinent art.
> 4.   Considering objective evidence present in the application indicating
>   obviousness or nonobviousness.

9.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under

37 CFR 1.56 to point out the inventor and invention dates of each claim that was not

commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

10.   Claims 16-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lazarus et al. (U.S. Patent 6,134,532) in view of **Addison et al.** (European Patent

Application EP 0,597,630) in view of **Eldering** (U.S. Patent 6,298,348).

11.   Regarding claim 16, **Lazarus et al.** teaches a prior art method for displaying

documents responsive to received search key words substantially as claimed,

comprising:

   a) identifying one or more documents related to the received search key words

         (see disclosure of prior art systems for displaying targeted advertisements

         to users that determine advertisements to be displayed by correlating the

         advertisement with search key words entered by the user, col. 1, lines 44-

         58; see also col. 2, lines 39-41; see also col. 3, lines 29-47); and

   b) transmitting for display the one or more documents (see disclosure that when

         an observed user behavior, such as a user-issued query contains a known

         keyword, one of the ads associated with the keyword is selected for

         display, col. 3, lines 32-35).

Lazarus et al. does not explicitly teach a method for displaying documents wherein the documents are selected on the basis of matching concepts (as opposed to matching keywords).

Addison et al., however, teaches a method for displaying documents responsive to a received concept comprising:

a) determining one or more concepts close in meaning to the received concept (see disclosure that the user's query is 'exploded' into related concepts, page 12, lines 45-46; see also the disclosure of step 3 <u>Look for Closely Associated Concepts</u>, page 13, lines 29-39);

b) identifying one or more documents related to the received concept or one or more concepts close in meaning to the received concept (see disclosure that the word senses in the user's request, along with closely associated concepts, are used as keys into the database of concepts to find concept references which point to particular documents, step 5 <u>Index into the Concept Indexes</u>, page 13, lines 51-57); and

c) transmitting for display the one or more documents based on an order (see disclosure that the results of the text searching are retrieved and displayed in ranked order, page 5, lines 50-52; see also disclosure that the final

display containing the matched documents is prepared and transmitted to

the display, page 16, lines 26-29; see also disclosure of ranking of results,

page 15, beginning on line 12).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to display documents wherein the documents are selected on the basis of

matching concepts (as opposed to matching keywords), since **Lazarus et al.** explicitly

teaches that a shortcoming of matching documents (in this case, advertisements) on the

basis of matching search key words is that advertisements that are conceptually close

but do not contain the specified key words would be missed (col. 2, lines 39-40), and

furthermore, because searching for "concepts" has been found to be more accurate that

Boolean, keyword or statistical searching as practiced in the prior art (see **Addison et

al.,** page 2, lines 6-8).

Neither **Lazarus et al.** nor **Addison et al.** explicitly teaches a method wherein the

documents are ordered corresponding to the relationship between monetary values

determined for each of the identified documents.

Eldering, however, teaches a method wherein the documents are ordered

corresponding to the relationship between monetary values determined for each of the

identified documents (see disclosure that advertisements can be assigned a value

commensurate with their perceived value to the advertiser, such that if an

advertisement is found to be very highly correlated with a consumer's product

preferences [which, in this case, would be determined by matching the concept for

which the consumer is searching with the concept associated with a given

advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser, see col. 3, lines 46-56).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to order retrieved documents based upon the relationship between monetary

values determined for each of the identified documents, since the value assigned to the

documents [in this case, advertisements] correspond to the perceived value to the

advertiser, such that if an advertisement is found to be very highly correlated with a

consumer's product preferences [as determined by matching the concept for which the

consumer is searching with the concept associated with a given advertisement], a

relatively high price can be charged for transmitting the advertisement to the consumer,

since it can be assumed that if said correlation is high, it is likely that the advertisement

will be of interest to the consumer, and therefore more likely to result in a sale for the

advertiser (see col. 3, lines 46-56).

12.   Regarding claim 23, **Lazarus et al.** teaches a prior art method for displaying

advertisements related to received search key words substantially as claimed,

comprising:

    a) identifying one or more advertisements related to the received search key

        words (see disclosure of prior art systems for displaying targeted

        advertisements to users that determine advertisements to be displayed by

        correlating the advertisement with search key words entered by the user,

        col. 1, lines 44-58; see also col. 2, lines 39-41; see also col. 3, lines 29-47); and

    b) transmitting for display the one or more advertisements (see disclosure that

        when an observed user behavior, such as a user-issued query contains a

        known keyword, one of the ads associated with the keyword is selected for

        display, col. 3, lines 32-35).

Lazarus et al. does not explicitly teach a method for displaying advertisements wherein the advertisements are selected on the basis of matching concepts (as opposed to matching keywords).

Addison et al., however, teaches a method for displaying advertisements responsive to a received concept comprising:

a) determining one or more concepts close in meaning to the received concept (see disclosure that the user's query is 'exploded' into related concepts, page 12, lines 45-46; see also the disclosure of step 3 <u>Look for Closely Associated Concepts</u>, page 13, lines 29-39);

b) identifying one or more advertisements related to the received concept or one or more concepts close in meaning to the received concept (see disclosure that the word senses in the user's request, along with closely associated concepts, are used as keys into the database of concepts to find concept references which point to particular documents, step 5 <u>Index into the Concept Indexes</u>, page 13, lines 51-57); and

c) transmitting for display the one or more advertisements based on an order (see disclosure that the results of the text searching are retrieved and displayed in ranked order, page 5, lines 50-52; see also disclosure that the final

display containing the matched documents is prepared and transmitted to

the display, page 16, lines 26-29; see also disclosure of ranking of results,

page 15, beginning on line 12).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to display advertisements wherein the advertisements are selected on the

basis of matching concepts (as opposed to matching keywords), since **Lazarus et al.**

explicitly teaches that a shortcoming of matching advertisements on the basis of

matching search key words is that advertisements that are conceptually close but do not

contain the specified key words would be missed (col. 2, lines 39-40), and furthermore,

because searching for "concepts" has been found to be more accurate that Boolean,

keyword or statistical searching as practiced in the prior art (see **Addison et al.**, page 2,

lines 6-8).

Neither **Lazarus et al.** nor **Addison et al.** explicitly teaches a method wherein the

advertisements are ordered corresponding to the relationship between monetary values

determined for each of the identified advertisements.

Eldering, however, teaches a method wherein the advertisements are ordered corresponding to the relationship between monetary values determined for each of the identified advertisements (see disclosure that advertisements can be assigned a value commensurate with their perceived value to the advertiser, such that if an advertisement is found to be very highly correlated with a consumer's product preferences [which, in this case, would be determined by matching the concept for which the consumer is searching with the concept associated with a given advertisement], a relatively high price can be charged for transmitting the advertisement to the consumer, since it can be assumed that if said correlation is high, it is likely that the advertisement will be of interest to the consumer, and therefore more likely to result in a sale for the advertiser, see col. 3, lines 46-56).

It would have been obvious to one of ordinary skill in the art at the time of the invention to order retrieved advertisements based upon the relationship between monetary values determined for each of the identified advertisements, since the value assigned to the advertisements correspond to the perceived value to the advertiser, such that if an advertisement is found to be very highly correlated with a consumer's product preferences [as determined by matching the concept for which the consumer is searching with the concept associated with a given advertisement], a relatively high

price can be charged for transmitting the advertisement to the consumer, since it can be

assumed that if said correlation is high, it is likely that the advertisement will be of

interest to the consumer, and therefore more likely to result in a sale for the advertiser

(see col. 3, lines 46-56).

13.   Regarding claim 29, **Lazarus et al.** teaches a prior art method for generating a

result relative to a search request substantially as claimed, comprising:

   a) maintaining a target data set comprising a plurality of target data set elements

         associated with one or more search key words (see disclosure of an

         advertisement selection mechanism, wherein each advertisement therein

         has been manually associated with one or more search key words, col. 3,

         lines 29-48);

   b) receiving at least one key word for a search request (see disclosure that a user

         submits one or more keywords, col. 3, lines 29-35);

   c) identifying one or more target data elements related to the received search key

         words (see disclosure of prior art systems for displaying targeted

         advertisements to users that determine advertisements to be displayed by

correlating the advertisement with search key words entered by the user,

col. 1, lines 44-58; see also col. 2, lines 39-41; see also col. 3, lines 29-47); and

d) transmitting for display the one or more target data elements (see disclosure

that when an observed user behavior, such as a user-issued query contains

a known keyword, one of the ads associated with the keyword is selected

for display, col. 3, lines 32-35).

Lazarus et al. does not explicitly teach a method for displaying target data

elements wherein the target data elements are selected on the basis of matching

concepts (as opposed to matching keywords).

Addison et al., however, teaches a method for displaying target data elements

responsive to a received concept comprising:

a) identifying one or more target data elements close in meaning to the received

concept (see disclosure that the word senses in the user's request, along

with closely associated concepts, are used as keys into the database of

concepts to find concept references which point to particular documents,

step 5 <u>Index into the Concept Indexes</u>, page 13, lines 51-57); and

b) transmitting for display the one or more target data elements based on an

   order (see disclosure that the results of the text searching are retrieved and

   displayed in ranked order, page 5, lines 50-52; see also disclosure that the

   final display containing the matched documents is prepared and

   transmitted to the display, page 16, lines 26-29; see also disclosure of

   ranking of results, page 15, beginning on line 12).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to display documents wherein the target data elements are selected on the

basis of matching concepts (as opposed to matching keywords), since **Lazarus et al.**

explicitly teaches that a shortcoming of matching target data elements (in this case,

advertisements) on the basis of matching search key words is that advertisements that

are conceptually close but do not contain the specified key words would be missed (col.

2, lines 39-40), and furthermore, because searching for "concepts" has been found to be

more accurate that Boolean, keyword or statistical searching as practiced in the prior art

(see **Addison et al.**, page 2, lines 6-8).

Neither **Lazarus et al.** nor **Addison et al.** explicitly teaches a method wherein the

target data elements are ordered corresponding to the relationship between monetary

values determined for each of the identified target data elements.

Eldering, however, teaches a method wherein the target data elements are

ordered corresponding to the relationship between monetary values determined for

each of the identified target data elements (see disclosure that advertisements can be

assigned a value commensurate with their perceived value to the advertiser, such that if

an advertisement is found to be very highly correlated with a consumer's product

preferences [which, in this case, would be determined by matching the concept for

which the consumer is searching with the concept associated with a given

advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser, see col. 3, lines 46-56).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to order retrieved target data elements based upon the relationship between

monetary values determined for each of the identified target data elements, since the

value assigned to the target data elements [in this case, advertisements] correspond to

the perceived value to the advertiser, such that if an advertisement is found to be very

highly correlated with a consumer's product preferences [as determined by matching

the concept for which the consumer is searching with the concept associated with a

given advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser (see col. 3, lines 46-56).

14.   Regarding claim 35, **Lazarus et al.** teaches a prior art method for generating a

result related to a search request substantially as claimed, comprising:

       a) maintaining a target data set comprising a plurality of target data set elements

               associated with one or more search key words (see disclosure of an

               advertisement selection mechanism, wherein each advertisement therein

               has been manually associated with one or more search key words, col. 3,

               lines 29-48);

       b) receiving at least one key word for a search request (see disclosure that a user

               submits one or more keywords, col. 3, lines 29-35);

c) identifying one or more target data elements related to the received search key

words (see disclosure of prior art systems for displaying targeted

advertisements to users that determine advertisements to be displayed by

correlating the advertisement with search key words entered by the user,

col. 1, lines 44-58; see also col. 2, lines 39-41; see also col. 3, lines 29-47); and

d) transmitting for display the one or more target data elements (see disclosure

that when an observed user behavior, such as a user-issued query contains

a known keyword, one of the ads associated with the keyword is selected

for display, col. 3, lines 32-35).

Lazarus et al. does not explicitly teach a method for displaying target data

elements wherein the target data elements are selected on the basis of matching

concepts (as opposed to matching keywords).

Addison et al., however, teaches a method for displaying target data elements

responsive to a received concept comprising:

a) identifying one or more target data elements close in meaning to the received

concept (see disclosure that the word senses in the user's request, along

with closely associated concepts, are used as keys into the database of

concepts to find concept references which point to particular documents,

step 5 <u>Index into the Concept Indexes</u>, page 13, lines 51-57); and

b) transmitting for display the one or more target data elements based on an

order (see disclosure that the results of the text searching are retrieved and

displayed in ranked order, page 5, lines 50-52; see also disclosure that the

final display containing the matched documents is prepared and

transmitted to the display, page 16, lines 26-29; see also disclosure of

ranking of results, page 15, beginning on line 12).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to display documents wherein the target data elements are selected on the

basis of matching concepts (as opposed to matching keywords), since **Lazarus et al.**

explicitly teaches that a shortcoming of matching target data elements (in this case,

advertisements) on the basis of matching search key words is that advertisements that

are conceptually close but do not contain the specified key words would be missed (col.

2, lines 39-40), and furthermore, because searching for "concepts" has been found to be

more accurate that Boolean, keyword or statistical searching as practiced in the prior art

(see **Addison et al.**, page 2, lines 6-8).

Neither **Lazarus et al.** nor **Addison et al.** explicitly teaches a method wherein the

target data elements are ordered corresponding to the relationship between monetary

values determined for each of the identified target data elements.

Eldering, however, teaches a method wherein the target data elements are

ordered corresponding to the relationship between monetary values determined for

each of the identified target data elements (see disclosure that the price charged to

access to consumers varies as a function of the applicability of the advertisement to the

consumer, rendering inherent the assignment of a base monetary value to elements in

the target data set, col. 5, lines 36-44; see also disclosure that advertisements can be

assigned a value commensurate with their perceived value to the advertiser, such that if

an advertisement is found to be very highly correlated with a consumer's product

preferences [which, in this case, would be determined by matching the concept for

which the consumer is searching with the concept associated with a given

advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser, see col. 3, lines 46-56).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to order retrieved target data elements based upon the relationship between

monetary values determined for each of the identified target data elements, since the

value assigned to the target data elements [in this case, advertisements] correspond to

the perceived value to the advertiser, such that if an advertisement is found to be very

highly correlated with a consumer's product preferences [as determined by matching

the concept for which the consumer is searching with the concept associated with a

given advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser (see col. 3, lines 46-56).

15.   Regarding claims 17, 18, 20-22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 37, 39 and 40,

Eldering additionally teaches a method wherein the order is based on descending

predicted relevance/semantic distance/degree of closeness in meaning/context of the

document to the received concept (see disclosure that that the price charged to access to

consumers varies as a function of the applicability of the advertisement to the

consumer, col. 5, lines 36-44).

16.   Regarding claims 19, 32 and 38, **Eldering** teaches a method wherein the

monetary values are prices associated with viewings of the one or more documents (see

col. 3, lines 46-56).

17.   Regarding claim 26, **Eldering** additionally teaches a method wherein the

elements in the target data set are assigned a monetary value based upon how closely

the element matched the requested search (see col. 1, lines 18-36; see also col. 3, lines 46-

56; see also col. 5, lines 36-45).

18.   Claims 41-43, 45-47, 55 and 56 are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Addison et al.** (European Patent Application EP 0,597,630) in view of

Eldering (U.S. Patent 6,298,348).

19.   Regarding claim 41, **Addison et al.** teaches a method for displaying documents

responsive to a received concept as claimed, comprising:

a) associating one or more documents with one or more concepts (see disclosure

of concept indexing, beginning on page 7, line 45; see also disclosure that

the final step of concept indexing is the assignment of index values which

associate a specific document with a concept, page 10, lines 15-19);

b) receiving a concept (see disclosure of the receipt of a user's query embodying a

concept, page 12, lines 45-60; see also the first step in the flowchart

illustrated in drawing Figure 6, page 28);

c) determining one or more concepts close in meaning to the received concept

(see disclosure that the user's query is 'exploded' into related concepts,

page 12, lines 45-46; see also the disclosure of step 3 Look for Closely

Associated Concepts, page 13, lines 29-39);

d) identifying one or more documents related to the received concept or one or

more concepts close in meaning to the received concept (see disclosure that

the word senses in the user's request, along with closely associated

concepts, are used as keys into the database of concepts to find concept

references which point to particular documents, step 5 Index into the

Concept Indexes, page 13, lines 51-57); and

e) transmitting for display the one or more documents associated with the one or

more concepts close in meaning to the received concept (see disclosure that

the results of the text searching are retrieved and displayed in ranked

order, page 5, lines 50-52; see also disclosure that the final display

containing the matched documents is prepared and transmitted to the

display, page 16, lines 26-29).

Addison et al. does not explicitly teach a method wherein the association of

documents with concepts is based in part on a monetary value.

Eldering teaches a method wherein the association of documents with concepts

is based in part on a monetary value (see disclosure that that the price charged to access

to consumers varies as a function of the applicability of the advertisement to the

consumer, rendering inherent the assignment of a monetary value to elements in the

target data set, col. 5, lines 36-44; see also disclosure that advertisements can be

assigned a value commensurate with their perceived value to the advertiser, such that if

an advertisement is found to be very highly correlated with a consumer's product

preferences [which, in this case, would be determined by matching the concept for

which the consumer is searching with the concept associated with a given

advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser, see col. 3, lines 46-56).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to order retrieved target data elements based upon the relationship between

monetary values determined for each of the identified target data elements, since the

value assigned to the target data elements [in this case, advertisements] correspond to

the perceived value to the advertiser, such that if an advertisement is found to be very

highly correlated with a consumer's product preferences [as determined by matching

the concept for which the consumer is searching with the concept associated with a

given advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser (see col. 3, lines 46-56).

20.   Regarding claim 45, **Addison et al.** teaches a method for displaying documents

responsive to a received concept as claimed, comprising:

a) associating one or more documents with one or more concepts (see disclosure

of concept indexing, beginning on page 7, line 45; see also disclosure that

the final step of concept indexing is the assignment of index values which

associate a specific document with a concept, page 10, lines 15-19);

b) receiving a search input including at least one concept (see disclosure of the

receipt of a user's query embodying a concept, page 12, lines 45-60; see also

the first step in the flowchart illustrated in drawing Figure 6, page 28);

c) determining one or more concepts close in meaning to the concept in the

search input (see disclosure that the user's query is 'exploded' into related

concepts, page 12, lines 45-46; see also the disclosure of step 3 Look for

Closely Associated Concepts, page 13, lines 29-39);

d) identifying one or more documents associated with the one or more concepts

close in meaning to the concept in the search input (see disclosure that the

word senses in the user's request, along with closely associated concepts,

are used as keys into the database of concepts to find concept references

which point to particular documents, step 5 Index into the Concept

Indexes, page 13, lines 51-57); and

e) transmitting for display the one or more documents associated with the one or

more concepts close in meaning to the concept in the search input (see

disclosure that the results of the text searching are retrieved and displayed

in ranked order, page 5, lines 50-52; see also disclosure that the final

display containing the matched documents is prepared and transmitted to

the display, page 16, lines 26-29).

Addison et al. does not explicitly teach a method wherein the association of

documents with concepts is based in part on a monetary value.

Eldering teaches a method wherein the association of documents with concepts

is based in part on a monetary value (see disclosure that that the price charged to access

to consumers varies as a function of the applicability of the advertisement to the

consumer, rendering inherent the assignment of a monetary value to elements in the

target data set, col. 5, lines 36-44; see also disclosure that advertisements can be

assigned a value commensurate with their perceived value to the advertiser, such that if

an advertisement is found to be very highly correlated with a consumer's product

preferences [which, in this case, would be determined by matching the concept for

which the consumer is searching with the concept associated with a given

advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser, see col. 3, lines 46-56).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to order retrieved target data elements based upon the relationship between

monetary values determined for each of the identified target data elements, since the

value assigned to the target data elements [in this case, advertisements] correspond to

the perceived value to the advertiser, such that if an advertisement is found to be very

highly correlated with a consumer's product preferences [as determined by matching

the concept for which the consumer is searching with the concept associated with a

given advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser (see col. 3, lines 46-56).

21.   Regarding claim 55, **Addison et al.** teaches a method of generating a search

result in response to a search request as claimed, comprising:

a) organizing concepts according to their meaning into a lexicon of predefined

known relationships between the concepts, said lexicon defining elements

of a semantic space (see disclosure of the automatic acquisition of semantic

networks, beginning on page 10, line 45);

b) receiving the search request and associating said search request with a first set

of concepts from said lexicon (see disclosure of the receipt of a user's query

embodying a concept, page 12, lines 45-60; see also the first step in the

flowchart illustrated in drawing Figure 6, page 28; see also step 5 Index into

the Concept Indexes, page 13, lines 51-56);

c) relating the search request to a larger set of search terms, wherein terms in the

larger set of search terms are close in meaning to the search request based

on semantic relationships defined by the lexicon (see disclosure that the

user's query is 'exploded' into related concepts, page 12, lines 45-46; see also

the disclosure of step 3 Look for Closely Associated Concepts, page 13,

lines 29-39); and

d) searching a target data set for elements close in meaning to the larger set of

search terms based on the semantic relationships (see disclosure that the

word senses in the user's request, along with closely associated concepts,

are used as keys into the database of concepts to find concept references

which point to particular documents, step 5 <u>Index into the Concept</u>

<u>Indexes</u>, page 13, lines 51-56).

Addison et al. does not explicitly teach a method wherein the target data

elements are ordered in accordance with the closeness in meaning between the search

request and the larger set of search terms, wherein the monetary values are based on

the closeness in meaning.

Eldering, however, teaches a method wherein the target data elements are

ordered in accordance with the closeness in meaning between the search request and

the larger set of search terms, wherein the monetary values are based on the closeness

in meaning (see disclosure that the price charged to access to consumers varies as a

function of the applicability of the advertisement to the consumer, rendering inherent

the assignment of a monetary value to elements in the target data set, col. 5, lines 36-44;

see also disclosure that advertisements can be assigned a value commensurate with

their perceived value to the advertiser, such that if an advertisement is found to be very

highly correlated with a consumer's product preferences [which, in this case, would be

determined by matching the concept for which the consumer is searching with the

concept associated with a given advertisement], a relatively high price can be charged

for transmitting the advertisement to the consumer, since it can be assumed that if said

correlation is high, it is likely that the advertisement will be of interest to the consumer,

and therefore more likely to result in a sale for the advertiser, see col. 3, lines 46-56).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to order retrieved target data elements based upon the relationship between

monetary values determined for each of the identified target data elements, since the

value assigned to the target data elements [in this case, advertisements] correspond to

the perceived value to the advertiser, such that if an advertisement is found to be very

highly correlated with a consumer's product preferences [as determined by matching

the concept for which the consumer is searching with the concept associated with a

given advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser (see col. 3, lines 46-56).

22.   Regarding claims 42 and 46, **Addison et al.** teaches a method of generating a

search result substantially as claimed.

Addison et al. does not explicitly teach a method wherein the documents are advertisements.

Eldering, however, explicitly teaches a method wherein the documents are advertisements (see col. 7, lines 20-32 et seq.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to return information about an advertisement or a product or service, since this would allow advertisements to be targeted toward consumers that are likely to have an interest in the advertisement, based upon the assumption that they are interested in the concepts reflected in the search query input by the user.

23.   Regarding claims 43 and 47, **Addison et al.** additionally teaches a method wherein the concept is received through a search request input by a user (see disclosure of the receipt of a user's query embodying a concept, page 12, lines 45-60; see also the first step in the flowchart illustrated in drawing Figure 6, page 28).

24.   Regarding claim 56, **Addison et al.** teaches a method of generating a search

result in response to a search request substantially as claimed.

        Addison et al. does not explicitly teach a method wherein the monetary values

are based on the closeness in meaning.

        Eldering, however, teaches a method wherein the monetary values are based on

the closeness in meaning (see disclosure that the price charged to access to consumers

varies as a function of the applicability of the advertisement to the consumer, rendering

inherent the assignment of a monetary value to elements in the target data set, col. 5,

lines 36-44; see also disclosure that advertisements can be assigned a value

commensurate with their perceived value to the advertiser, such that if an

advertisement is found to be very highly correlated with a consumer's product

preferences [which, in this case, would be determined by matching the concept for

which the consumer is searching with the concept associated with a given

advertisement], a relatively high price can be charged for transmitting the

advertisement to the consumer, since it can be assumed that if said correlation is high, it

is likely that the advertisement will be of interest to the consumer, and therefore more

likely to result in a sale for the advertiser, see col. 3, lines 46-56).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to assign monetary values based upon the closeness of meaning, since if an

advertisement is found to be very highly correlated with a consumer's product

preferences [as determined by matching the concept for which the consumer is

searching with the concept associated with a given advertisement], a relatively high

price can be charged for transmitting the advertisement to the consumer, since it can be

assumed that if said correlation is high, it is likely that the advertisement will be of

interest to the consumer, and therefore more likely to result in a sale for the advertiser

(see col. 3, lines 46-56).

Response to Arguments

25.   Applicant's arguments filed 19 June 2008 have been fully considered but they are

not persuasive.

26.   Regarding the Applicants' argument that the **Lazarus et al.** reference teaches

away from a combination with the **Eldering** reference, the examiner respectfully

disagrees.

The Applicants argue that the **Eldering** reference *as a whole* teaches away from

combination with the **Lazarus et al.** reference, and that a person of ordinary skill in the

art interested in designing a system of advertising where the advertisements

correspond to received concepts would have **no reason** to borrow from a system that

targets advertisements based on a demographic profile.

The examiner points out, however, that both references are attempting to address

the same problem, presenting 'targeted' advertisements that are most relevant to the

user. For instance, **Lazarus et al.** teaches in col. 4 that

> The existing ad selection systems, particularly in coupon
> 40 and print media advertising, fail to address the interactive
> nature of the Internet and electronic commerce. Advertisers
> need to be able to identify users of specific interests, track
> those interests over time and disseminate, in a highly selec-
> tive way, information, advertising, coupons and product
> 45 offerings that will be of interest to the user. Additionally,
> advertisers need to track user interests and behavior in a
> real-time manner.

Likewise, **Eldering** teaches in col. 1 that

> From an advertiser's perspective the ability to target ads
> can be beneficial since they have some confidence that their
> ad will at least be determined relevant by the consumer, and 20
> therefore will not be found annoying because it is not
> applicable to their lifestyle.

The **Lazarus et al.** reference in fact itself teaches the use of the users' inputs to

make estimates of their demographic profiles, and uses these profiles to enhance the

selection of relevant advertisements. See, for instance, the following disclosure at cols. 5

and 20 respectively:

> The actions of each user are represented by profile vectors. Typical user actions include, but are not limited to: issuing queries requesting or reading pages, visiting Internet [20] sites, responding to ads, and redeeming coupons and purchasing products. A user's profile vector is configured to track observed behavior by using the content vector representation of the associated actions. For example, when the user requests a page of information, the user's profile vector [25] is adjusted based upon the entity vector of the requested page.
>
> The user profile vector is utilized as the mechanism for selecting the best entity (e.g., ad, coupon, product or information) to present to the user. The user profile vector is [30] compared to each active entity vector, and the closest entity content vector is selected for display to the user.

> [30]   4. Demographic predictions and tagging.
> For many advertising and sales applications, it is advantageous to have an estimate of the demographic parameters for individuals as well as the entire user population. In the present system, although no user registration is performed, [35] advertisers can analyze the profiles vectors to retrieve user demographics. Advertisers can use these profile vectors to estimate the age, gender, household income (HHI), and other demographic parameters of a user. The present system has provisions to incorporate demographic models into its [40] operation. When using these demographic models, the demographic parameters of the entire population of users are estimated and used to augment the information in the profile vector database **226**. This estimate process can be performed by both conventional statistical methods or via neural net- [45] work techniques.

In the art of targeted advertising, an ordinary artisan would have ample reason to consider the use of any number of techniques in order to select the most relevant advertisements to any given user, including the techniques discussed in the background in cols. 2-4, and to borrow useful features from them. Clearly, since the **Lazarus et al.** reference itself teaches the use of demographic information in combination with the user's received actions/searches/concepts in selecting the most relevant targeted advertisements, it would be reasonable for an ordinary artisan to look to the disclosure of **Eldering** for additional useful features with which the disclosed system could be enhanced.

27.   For these same reasons, the examiner respectfully disagrees with the Applicants' argument that the **Lazarus et al.** and **Addison et al.** references could not be combined with the **Eldering** reference, either because the principle of operation of each would be changed or for other reasons.

Since the **Lazarus et al.** reference itself teaches the use of demographic information in combination with the user's received actions/searches/concepts in

selecting the most relevant targeted advertisements, clearly the proposed combination would not change the principle of operation.

Furthermore, as stated in previous Office actions, the **Eldering** reference is relied upon only for the specific feature that the documents/advertisements are assigned a monetary value according to the correlation between them and the consumer's product preferences, which in this case would correspond to the closeness of the concept of the advertisement to the concept for which the user is searching.

The incorporation of this feature into the systems/methods disclosed by the **Lazarus et al.** and **Addison et al.** references would serve to enhance those systems and methods, and would in no way require the principle of operation of either to be changed.

28.   Regarding the Applicants' argument that the **Eldering** reference fails to teach "monetary values determined for each of the one or more documents", the examiner respectfully disagrees.

The Applicants argue that "Eldering is not associating monetary values for each document, but rather charging based on the correlation of the consumer's profile and

the advertisement." The examiner respectfully points out that the disclosed 'charging

based on the correlation of the consumer's profile and the advertisement' **is** the claimed

associating monetary values for each document, whereby the advertisements constitute

the documents.

The examiner points out that the Applicants' own disclosure of these features,

discussed in their entirety in association with drawing Figure 9, states that

With the aid of semantic space, an advertising campaign may be sold on a variable rather than a fixed cost basis. The cost of the banner ad or other ad when retrieved can be based directly upon the semantic distance (i.e. degree of closeness in meaning/context) from a key term that was purchased to the input term(s). For instance, if the purchased synset by a candy website for its ad is "candy" and a search term "snack foods" is entered as input, this may still trigger retrieval of the candy website ad (due to a semantic proximity). However, since this user was probably not as interested in a candy website, the ad may not be reaching the as valuable a target user as one who may have entered "candy" as a search term. Even though the ad was retrieved, its display may not be that valuable to the advertiser. In most Internet advertising pricing models, advertisers buy "page views" (the number of times their ad is displayed) without any regard to the relevance of the ad to the user and correspondingly, the effectiveness to the advertiser.

Using semantic space, the relevance of the ad to the user can be determined based upon the input terms. The price of that particular page view can be modified based upon the semantic distance between location in semantic space of the purchased synset and the input term(s). One way to formulate this relation is to say that the semantic distance is inversely proportional to the price of the ad. The farther away in semantic space the input term is to the purchased synset, the less the ad will cost the advertiser. Conversely, the closer in semantic space the term is to the purchased synset, the more the ad will cost the advertiser. This relationship is demonstrated in the graph of FIG. 9 which plots semantic distance against the price of the ad to the advertiser. The graph of FIG. 9 and the inverse relation described above is one of many possible formulations of variable pricing according to semantic relationship and is merely illustrative. Other factors may include the path through semantic space, the type of semantic relationship between the term and purchased synset and the presence of other ads within the same semantic sub-space.

(This text was taken from U.S. Patent 6,816,857, parent of the instant application,

having the identical disclosure.)

This disclosure is virtually identical to that disclosed by the **Eldering** reference in

cols. 3 and 5 respectively:

> Another feature of the present invention is the ability to
> price access to the consumer based on the degree of corre-
> lation of an advertisement with their profile. If an advertise-
> ment is found to be very highly correlated with a consumer's
> demographics and product preferences, a relatively high [50]
> price can be charged for transmitting the advertisement to
> the consumer. From the consumer's perspective, if the
> correlation between the advertisement and the consumer's
> demographics or product preferences is high the consumer
> can charge less to view the ad, since it is likely that is will [55]
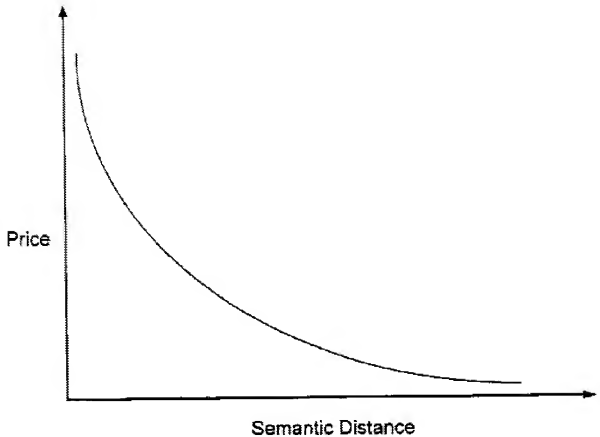> be of interest.

> In a preferred embodiment of the present invention, a
> pricing policy can be defined. The content/opportunity pro-
> vider 160 can charge advertiser 144 for access to consumer
> 100 during an opportunity. In a preferred embodiment the
> price charged for access to consumer 100 by content/ [40]
> opportunity provider varies as a function of the applicability
> of the advertisement to consumer 100.

When combined with the disclosures of the **Lazarus et al.** and **Addison et al.**

references, the resulting system assigns a monetary value to each

document/advertisement, based upon the relevance to the user, said relevance

determined based upon the correlation of the concepts embodied in the user's

submitted query and the document/advertisement, identical to the feature as disclosed

and claimed by the Applicants.

29.   Regarding the Applicants' argument that the prior art of record fails to teach

"identifying one or more documents associated with the one or more concepts close in

meaning to the received concepts, **wherein the association of documents with concepts**

is based in part on a monetary value", the examiner respectfully disagrees.

        The only disclosure in the Applicants' specification regarding monetary values

appears with regard to drawing Figure 9:

> Using semantic space, the relevance of the ad to the user
> can be determined based upon the input terms. The price of
> that particular page view can be modified based upon the
> semantic distance between location in semantic space of the
> purchased synset and the input term(s). One way to formu-   40
> late this relation is to say that the semantic distance is
> inversely proportional to the price of the ad. The farther
> away in semantic space the input term is to the purchased
> synset, the less the ad will cost the advertiser. Conversely,
> the closer in semantic space the term is to the purchased   45
> synset, the more the ad will cost the advertiser. This rela-
> tionship is demonstrated in the graph of FIG. 9 which plots
> semantic distance against the price of the ad to the adver-
> tiser.

Price

Semantic Distance

Since there is only one enabling disclosure to support the claim limitation in the

Applicants' specification, the limitation at issue has been interpreted by the examiner as

embodying the disclosure that "the semantic distance [between the locations in semantic

space of the advertisement and the user's input term(s)] is inversely proportional to the

price of the ad", a disclosure which is disclosed by the prior art of record, as discussed

above. Any other interpretation of the limitation would necessitate a rejection under 35

U.S.C. § 112, first paragraph.

The rejections of record are maintained by the examiner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 571-272-4119. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 571-273-4119, or sent via email at luke.wassum@uspto.gov, **with a previous written authorization in accordance with the provisions of MPEP § 502.03.** Such communications must be clearly marked as INFORMAL, DRAFT or UNOFFICIAL.

Customer Service for Tech Center 2100 can be reached during regular business hours at (571) 272-2100, or fax (571) 273-2100.

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Luke S. Wassum/
Primary Examiner
Art Unit 2167

lsw
2 October 2008